17 Coastal Master Plan

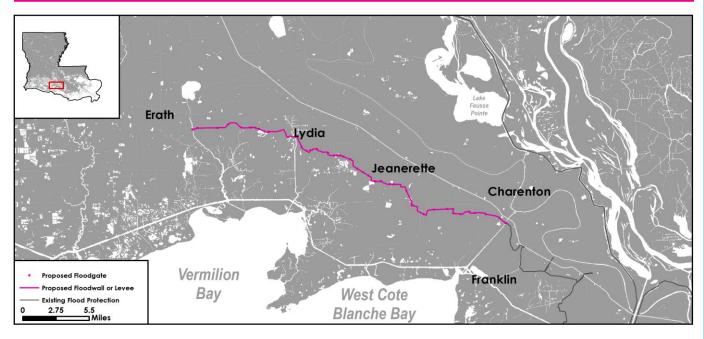
mplementation Period I

Iberia/St. Mary Upland Levee

Structural Protection

Project ID: 03b.HP.14





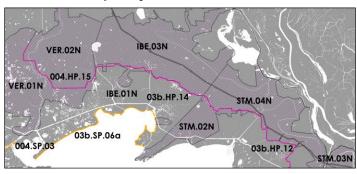
Description

Construction of a levee to an elevation between 15.5 to 20 feet NAVD88 in Iberia and St. Mary Parishes between the Delcambre Canal and the Charenton Canal. Project features approximately 158,300 feet of earthen levee, approximately 15,100 feet of T-wall, (3) 110-foot barge gates, (5) 30-foot barge gates, (8) 24-foot sluice gates, (11) 16-foot sluice gates, (11) 8-foot sluice gates, (2) 40-foot swing gates, (2) 40-foot roller gates, and (7) pump stations with a total capacity of 16,320 cfs.

Project Cost Estimate

	Estimatea Cost
Planning/Engineering & Design	\$209,000,000
Construction	\$1,086,500,000
Operations & Maintenance	\$186,600,000
Total	\$1,482,100,000

Other Nearby Projects in the Master Plan



Scale of Influence

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Local	Sub-basin	Basin	Regional

Project Location

St. Mary Parish; Iberia Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years. Construction is estimated to take 7 years.

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Other Project Area Statistics			
Estimated Current Population	83,400		
U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)			
Percent of Population who are Low-to-Moderate Income	39%		
American Community Survey (2006 - 2010)			
Number of Severe Repetitive			
Loss Properties	525		
Governor's Office of Homeland Security (2015)			

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Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	FWOA	FWP	Difference		
0	\$279 M	-	-		
25	\$617 M	\$483 M	\$134 M		
50	\$1,310 M	\$1,057 M	\$253 M		

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	Protected	Total
Airport Facility	-	-
Gas Processing	-	30
Government/Military	-	-
Electric Power Substation	4	21
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	4
Electric Power Plant	1	9
Port	-	4
Petroleum Pump Station	-	9
Refinery	-	-
Water and Sewer	-	2
Strategic Petroleum Reserve	-	-
Total	5	79

Table 3: Economic Damage by Return Period at Year 50

Risk Region	50 Y	50 Year		100 Year		500 Year	
	FWOA	FWP	FWOA	FWP	FWOA	FWP	
lberia - Atchafalaya	\$7,766 M	\$3,140 M	\$9,612 M	\$3,632 M	\$11,158 M	\$4,086 M	
lberia - Lower	\$68 M	\$69 M	\$69 M	\$69 M	\$69 M	\$70 M	
Lafayette	\$5 M	\$4 M	\$7 M	\$5 M	\$55 M	\$7 M	
St. Mary - Franklin/Charenton	\$7,293 M	\$5,818 M	\$9,379 M	\$8,093 M	\$10,482 M	\$9,347 M	
St. Mary - Glencoe	\$230 M	\$245 M	\$238 M	\$249 M	\$240 M	\$251 M	
St. Mary - Morgan City	\$96 M	\$99 M	\$100 M	\$103 M	\$104 M	\$105 M	
Vermilion	\$5,324 M	\$5,366 M	\$6,172 M	\$6,196 M	\$6,500 M	\$6,549 M	
Vermilion - Abbeville/Delcambre	\$7,205 M	\$7,194 M	\$10,196 M	\$9,983 M	\$12,823 M	\$12,657 M	
Total	\$27,986 M	\$21,933 M	\$35,772 M	\$28,331 M	\$41,431 M	\$33,071 M	